

SPARK PLUG CONFIGURATION HAVING A NOBLE METAL TIP

ABSTRACT OF THE DISCLOSURE

A spark plug having a particular firing end configuration that satisfies numerous dimensional ranges for improved performance. The spark plug generally includes a shell, an insulator, and center and ground electrodes, with the electrodes each having a copper core for improved thermal conductivity and a noble metal insert for improved erosion and corrosion resistance. The noble metal insert for the center electrode is preferably in the form of a cylindrical Ir-based tip, which is received within a complimentary recess formed in the center electrode. The noble metal insert for the ground electrode is in the form of a flat Pt-based pad attached to a surface of the ground electrode. Various dimensional ranges are provided for the various components of the spark plug assembly, both individually and in combination with other dimensions.